

AMENDMENTS TO THE CLAIMS

1-23. (cancelled)

24. (currently amended) A method ~~of~~for treatment ~~for~~of a cartilage or osteochondral defect ~~the promotion of cartilage and/or bone formation~~ comprising the step of administering an effective amount of Chemokine, CXC Motif, Ligand 6 (CXCL6) to an individual in need thereof, so as to obtain promotion of hyaline cartilage in said cartilage defects and optionally subchondral bone formation in said osteochondral defects.

25. (cancelled) The method according to claim 24, which is a method for the prevention or treatment of a cartilage or osteochondral defect.

26. (currently amended) The method according to claim 24, which is a method for the prevention or treatment of a joint surface defect not related to inflammation.

27. (currently amended) The method according to claim 24, wherein said the source of CXCL6 is a population of CXCL6-expressing cells recombinant CXCL6.

28. (currently amended) The method according to claim 25, wherein said CXCL6 is administered in a concentration gradient to said osteochondral defect ~~in a gradient~~.

29. (previously presented) The method according to claim 24, further comprising the step of administering chondrogenic cells or precursor cells of said chondrogenic cells.

30. (withdrawn) A method of treatment for the promotion of cartilage and/or bone formation comprising the step of administering an effective amount of CXCL6-expressing cells to an individual in need thereof, wherein said cells comprise a foreign DNA encoding said CXCL6 under the control of a promoter.

31. (withdrawn) The method according to claim 30, which is a method for the prevention or treatment of a cartilage or osteochondral defect.

32. (withdrawn) The method according to claim 30, which is a method for the prevention or treatment of a joint surface defect not related to inflammation.

33. (withdrawn) The method according to claim 30, wherein said CXCL6-expressing cells are chondrogenic cells.

34. (withdrawn) The method according to claim 30, wherein said CXCL6-expressing cells are embedded in a matrix.

35. (withdrawn) A method for determining chondrocyte phenotypic stability of a cell population, said method comprising the steps of a) providing a chondrocyte cell population and b) determining the expression of CXCL6 by said cell population, wherein expression of CXCL6 is indicative of said chondrocyte phenotypic stability.

36. (withdrawn) A method of inducing or restoring chondrocyte phenotypic stability in a progenitor cell population in vitro, said method comprising the step of administering CXCL6 to said progenitor cell population.

37. (withdrawn) A method of inducing or restoring differentiation of a precursor cell population into chondrocytes, said method comprising the step of administering CXCL6 to said precursor cell population.

38. (withdrawn) A method for producing a medicament for the promotion of formation of cartilage or bone in vivo, which method comprises

- a) obtaining cells from a cartilage biopsy;
- b) selecting cells therefrom based on CXCL6 expression; and
- c) formulating said CXCL-6 expressing cells in a medicament.

39. (new) The method according to claim 24, wherein said osteochondral defect is a joint surface defect.